

Film x 1000

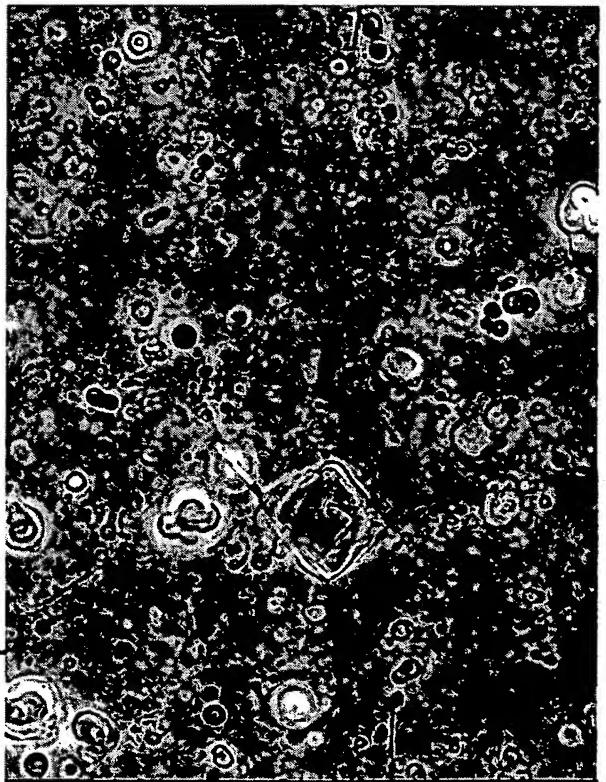


Figure 2

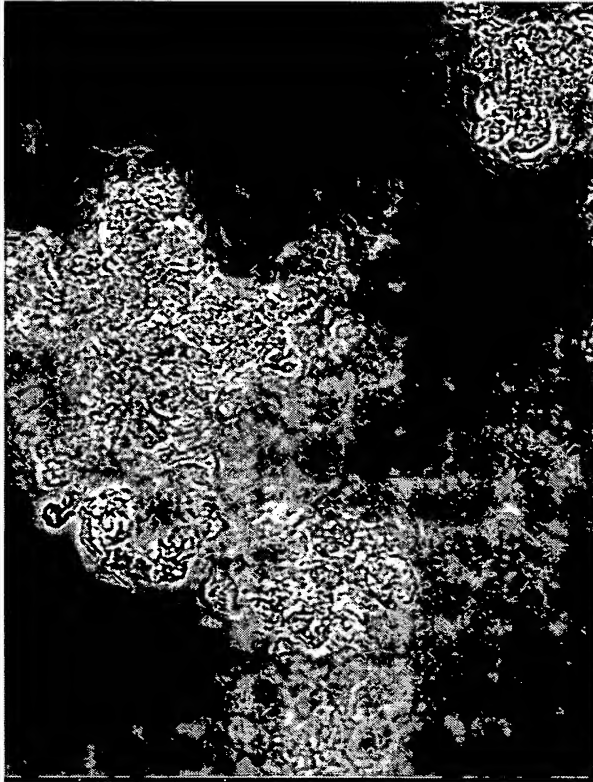
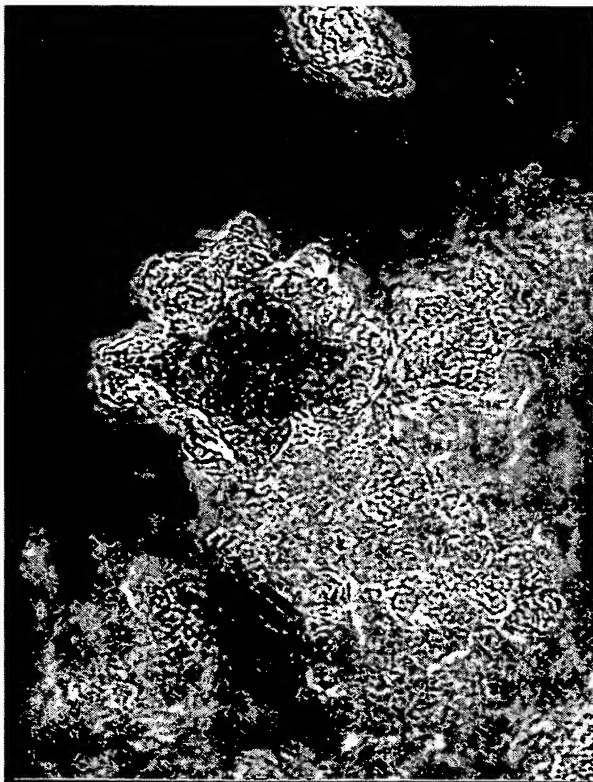
Film x 400



Liposome



Cochleates



Cochleates + EDTA

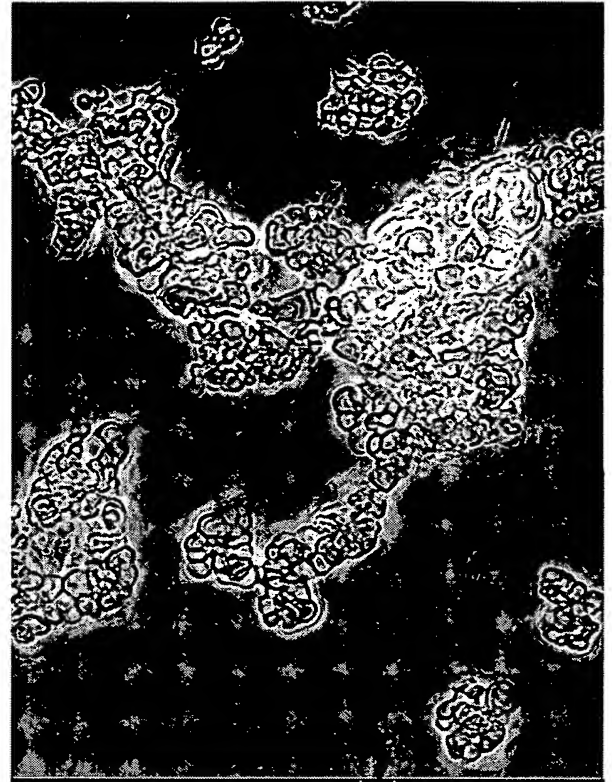
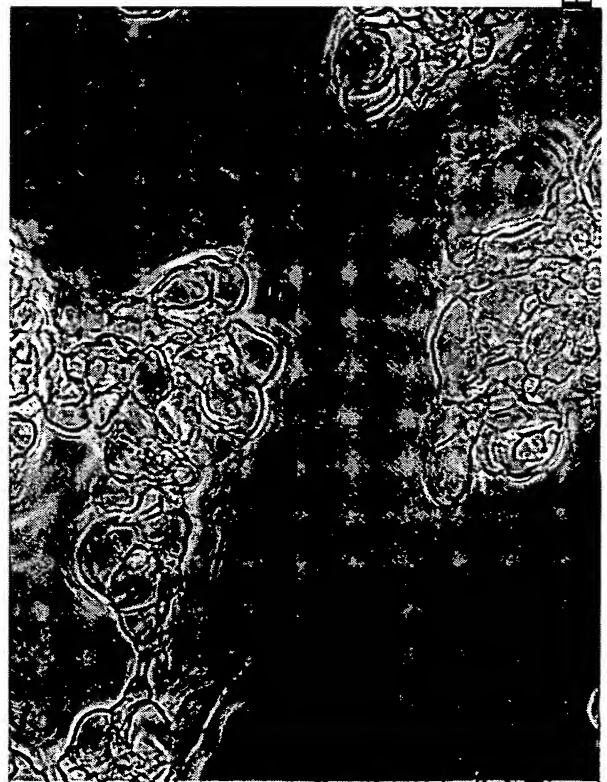
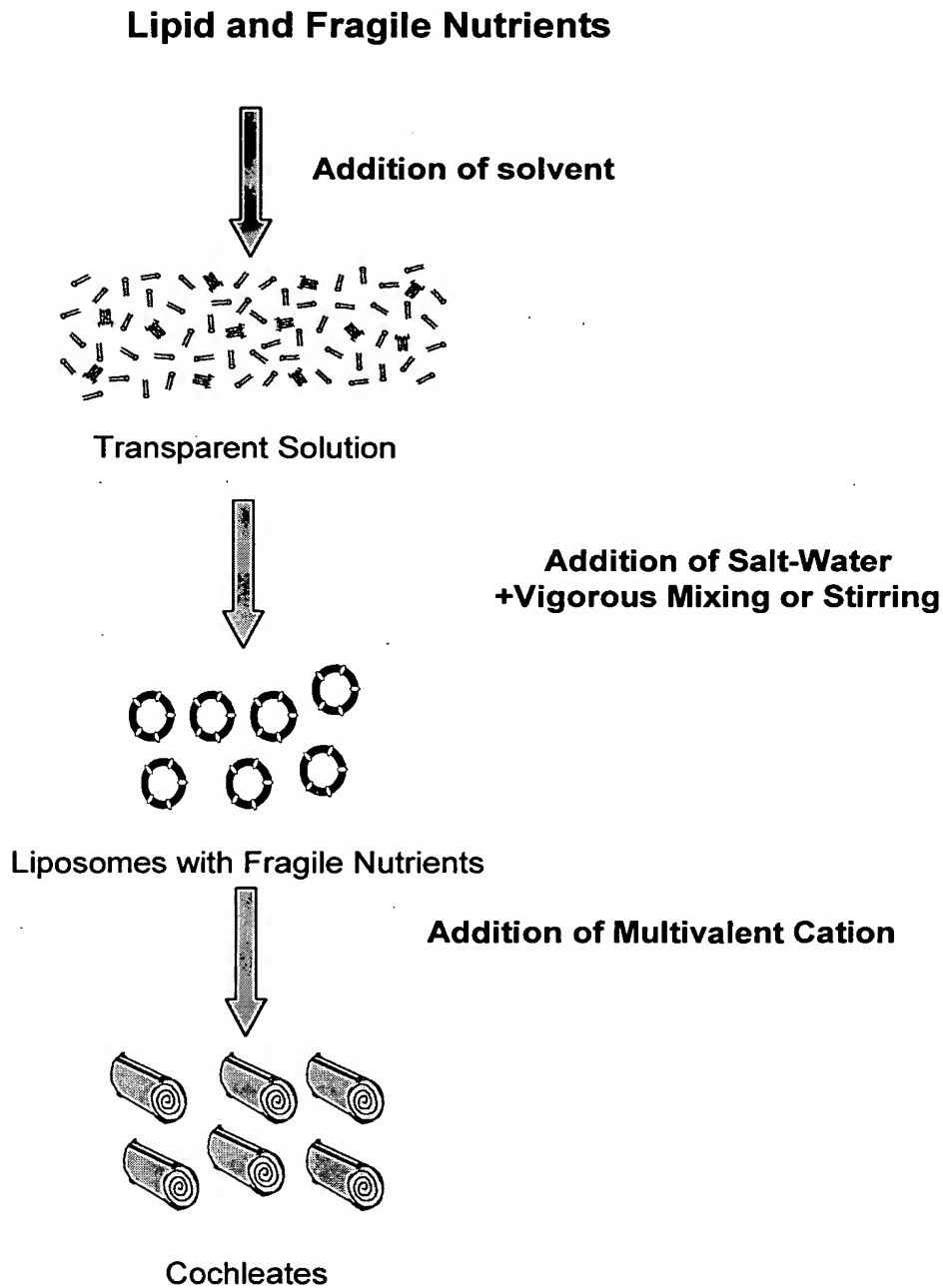


Figure 3

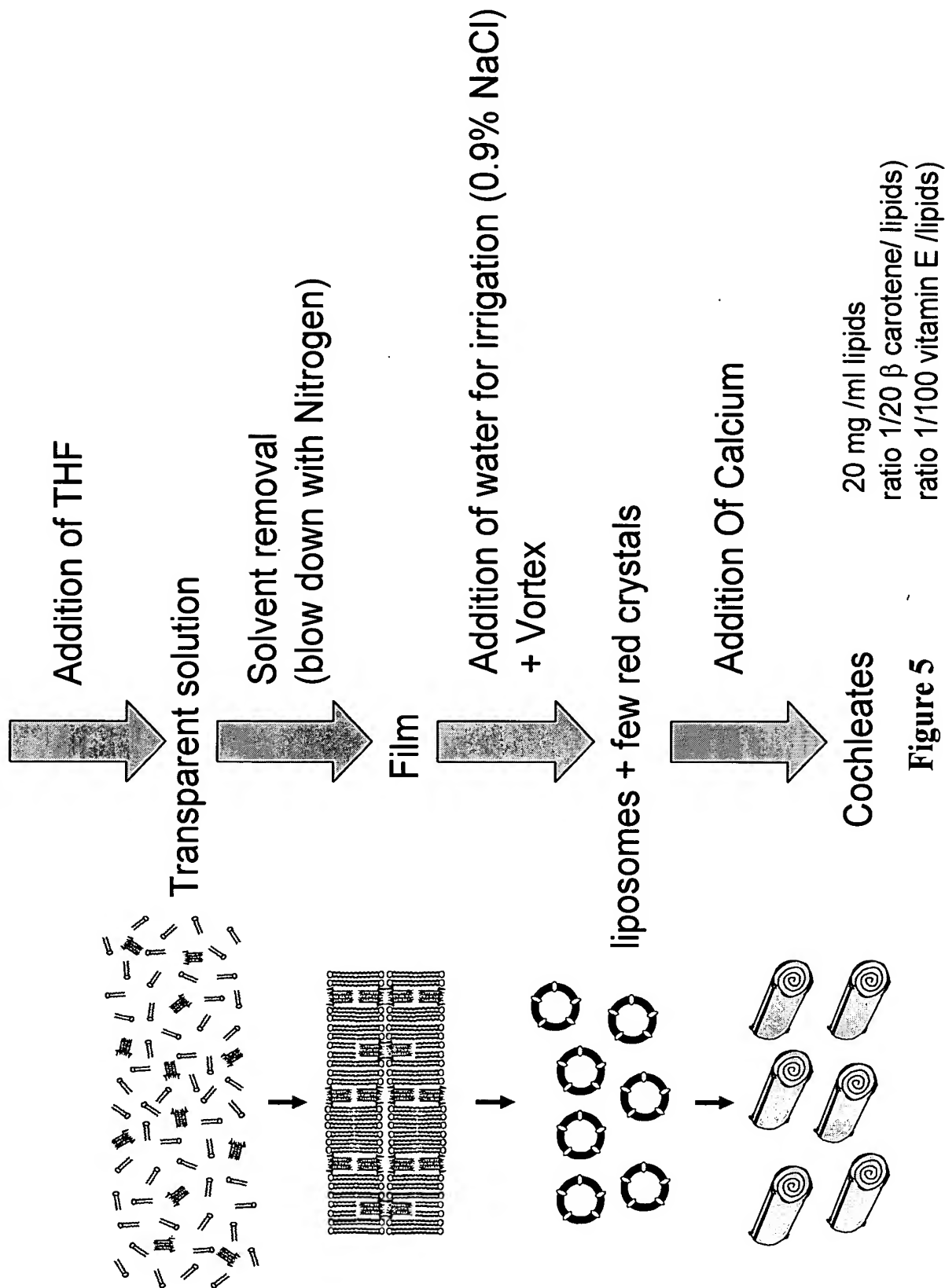
## Preparation of Fragile Nutrient Cochleates



The cochleates in suspension can be harvested by filtration, centrifugation, or other techniques, and dried to a powder.

**Figure 4**

Soy-PS+  $\beta$ -carotene (ratio 20/1) + vitamin E (ratio 100/1)



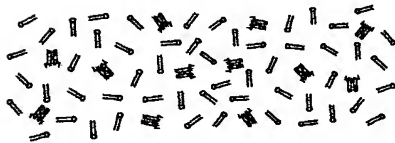
**Figure 5**

## Preparation of Beta Caroten Cochleates

**1 g Soy-PS+ 50 mg  $\beta$ -carotene (ratio 20/1)  
+ 10 mg vitamin E (ratio 100/1)**



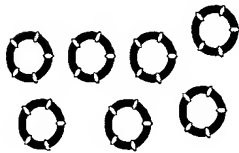
**Addition of 10 ml of THF, (Tetrahydrofuran)**



Transparent Solution



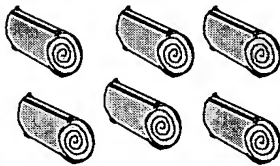
**Addition of 300 ml water for irrigation (0.9% NaCl)  
+Vigorous Mixing or Stirring**



Liposomes and  
A few red crystals



**Addition of 15 ml of 0.1 M calcium chloride  
(50 ul/10 sec. with vigorous mixing)**



Cochleates

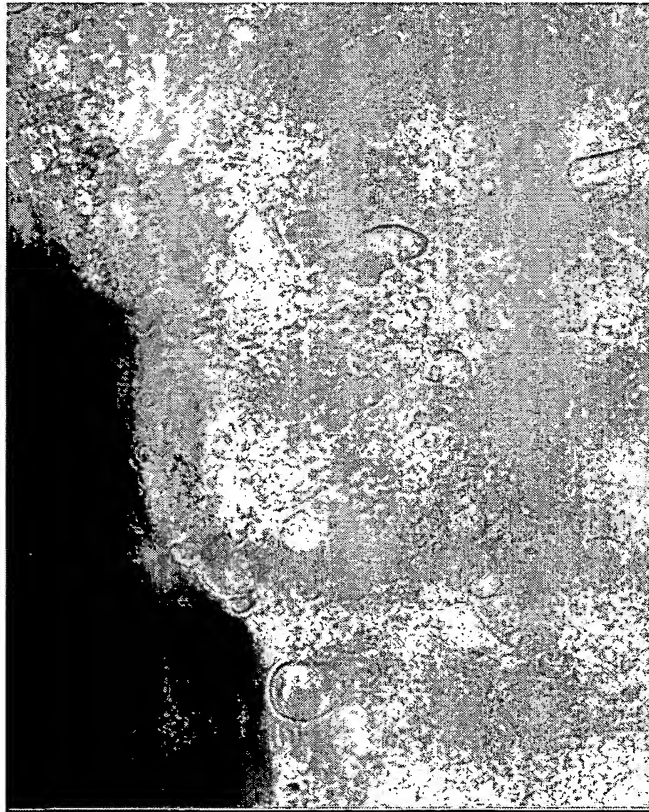
**The cochleates in suspension can be harvested by filtration,  
centrifugation, or other techniques, and dried to a powder.**

**Figure 6**



**Figure 7**

Fish oil cochleates of the invention



Fish oil cochleates upon addition of EDTA

